Second, within 120 days following the effective date of the Report and Order,[33] the Phase I Planning Committee would establish a detailed frequency plan setting forth post-relocation spectrum assignments for clearing the 1-120 channel block in each of the first 14 NPSPAC planning regions as prioritized by the RCC.[34] The RCC would certify to the Commission the Phase I clearing plans for each NPSPAC Region, as described above.

The RCC's certification of each Phase I regional plan to the FCC will begin a mandatory nine-month negotiation period between Nextel and channel 1-120 incumbents in the first 14 prioritized NPSPAC Regions. The Phase I Planning Committee will have established all replacement channel locations for moving the channel 1-120 incumbents to their new locations in the non-cellular block; accordingly, the only issues to be resolved during the mandatory negotiation periods will be the timing of individual Phase I licensee relocations within each NPSPAC region, the specific costs that will be incurred for relocation and either reimbursed or paid for directly by the 800 MHz realignment Fund Administrator from the relocation fund, and a specific relocation plan for each relocating licensee designed to prevent significant disruption of its operations, especially communications relating to the protection of life, health and property.

If an incumbent licensee and Nextel cannot complete a relocation agreement within the nine-month negotiation period, either party may initiate binding arbitration of unresolved cost

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33 In other words, the physical relocation of EA and wide-area incumbents does not have to commence or be completed prior to the Phase I Committee establishing detailed post-relocation spectrum assignments for the first 14 prioritized NPSPAC regions. The actual submission of assignment swap applications to the Commission and subsequent physical retuning of the 1-120 block EA and wide-area incumbents can take place at any time after the Phase I Committee certifies the detailed relocation plan, but no later than the deadlines discussed below for retuning the 1-120 channel block incumbents for the first 14 prioritized NPSPAC regions.

34 ***See*** Appendix E.

and timing issues before an arbitration panel established by the RCC, which would choose between relocation proposals submitted by the two parties in a "baseball-type" arbitration process.[35] In "baseball-type" arbitration, each side submits its best proposal, and the arbitrator is required to either select one or the other; the arbitrator cannot "pick and choose" from among the competing proposals nor develop its own.[36] This approach has the advantage of incenting the parties to close the gap between their proposals as much as possible and thereby more likely avoid arbitration.

Once an incumbent licensee and Nextel reach agreement on these issues and execute a relocation agreement, the RCC will prepare the necessary license applications.[37] The Consensus Parties believe that the RCC should be allowed to file non-public safety applications directly with the Commission and, if necessary, be designated as a special frequency coordinator for that purpose. These non-public safety applications will be considered "pre-coordinated", since the

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35 The costs of the arbitration panel shall be paid by the RCC and/or reimbursed from the Relocation Fund.

36 The Consensus Parties recognize that most public safety licensees are governmental agencies and may be subject to state, municipal or other laws or regulations limiting their participation in binding arbitration, such as the "baseball-type" arbitration proposed herein. In such cases, the parties should be directed (with the assistance of the non-Nextel members of the RCC) to undertake all best efforts to reconcile any unresolved cost and/or timing issues consistent with applicable state/local requirements, including non-binding arbitration subject to review and reversal by the Commission. This consideration would apply to governmental agency involvement in arbitration as it relates to any phase of the 800 MHz realignment process.

37 The license applications would be prepared and filed as soon as the parties reach a relocation agreement; in no case, however, later than 13 months after the effective date of the Report and Order (nine months after certification of the relocation plans for Regions prioritized 1-14). These applications will request Commission approval of reciprocal assignments: each incumbent to the 121-400 channel block; Nextel from that block to the 1-120 channel block. When completed, Nextel would temporarily be the sole licensee of channels 1-120 in each NPSPAC Region until replaced by the current NPSPAC incumbents in Phase II of the realignment process.

relocations involved were previously "certified" to the Commission by the RCC; accordingly, approval of such applications would be presumed in the public interest. Applications involving *public safety incumbents,* on the other hand, will be filed by the RCC (or the relevant applicant) with a certified public safety frequency coordinator, which will complete a final review and submit the application to the Commission?' Final coordination by a certified public safety coordinator, notwithstanding the proposed RCC process, is necessary to provide an added level of assurance to public safety agencies that their new channel assignments will not lead to any reduction in coverage or increase in interference potential. To avoid delay, the Commission should require public safety coordinators to submit such applications to the Commission within seven days of their receipt by the public safety coordinator.

The Consensus Parties suggest that the Commission agree to use its best efforts to process and grant Phase I relocation applications within 60 days of filing.[39] Under the proposed timeframe, the physical retuning of all 1-120 channel block incumbents in Regions prioritized 1-14 should commence fifteen months from the effective date of the Report and Order (or sooner in some cases) and must be completed within six months of the Commission approval of the incumbent licensee's new channel assignment?' Once an incumbent relocates and vacates its existing channels, its license for those "existing" channels would be voluntarily cancelled.

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[38] Public safety licensees constitute a small, but significant, minority of incumbents impacted by Phase I.

[39] A 60-day processing period leaves time for 30-days Public Notice and ample time for Commission consideration of any Petitions to Deny on the limited issues involved in each application.

[40] Although frequency plans will be developed by the RCC on a NPSPAC Region basis, the actual system relocations do not have to be coordinated by region, but can commence on a individual basis in different regions upon the timing agreed to by Nextel and the affected incumbent licensee.

To ensure that relocation proceeds as planned, the Consensus Plan provides for the Commission to cancel the license of any 1-120 channel block incumbent in NPSPAC regions prioritized 1-14 not executing a relocation agreement within 13 months of the Report and Order, unless the incumbent is involved in arbitration, or otherwise subject to a Commission administrative process (*i.e.*, a governmental licensee unable to engage in binding arbitration), as described above. The Plan also provides for the Commission to direct an incumbent that refuses to relocate within six months of its application grant to relocate within 30 days to its new, licensed replacement frequencies and to cancel the license of any prioritized Regions 1-14 incumbent not vacating its original frequencies and surrendering its license within 24 months of the Report and Order.

The process described above will also be used to relocate channel block 1-120 incumbents in NPSPAC Regions prioritized 15-55 in accordance with the following timeline. Within five days of the effective date of the Report and Order, the Commission would issue a Public Notice directing affected 1-120 channel block incumbents in NPSPAC regions prioritized 15-55 to file with it and the RCC a full description of their licensed systems, as set forth in Appendix C, no later than 45 days from the effective date of the Report and Order.[41] Within six months of the effective date of the Report and Order, the Phase I Committee would complete and certify to the Commission detailed frequency plans setting forth post-relocation channel assignments in the 121-400 channel block for clearing the 1-120 block incumbents in NPSPAC regions prioritized 15-55. A 13-month mandatory negotiation period would follow to complete relocation agreements between Nextel and the 1-120 incumbents; accordingly the RCC would

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41 This can be the same Public Notice used for prioritized NPSPAC Regions 1-14 or a separate notice.

file reciprocal assignment applications on behalf of the parties no later than **19** months from the Report and Order effective date. Assuming the Commission processes these applications within two months, physical retuning of the 1-120 incumbents in NF'SPAC regions prioritized 15-55 would commence at the 21-month mark and be completed within **12** months thereafter (33 months from the Report and Order).

As discussed above, any B/ILT and high-site SMR incumbent licensee may choose to voluntarily relocate to the 900 MHz SMR channels currently licensed to Nextel. Any B/ILT or H-SMR licensee choosing to relocate to the 900 MHz spectrum currently licensed to Nextel would be required to inform the RCC of this election within 60 days of the Report and Order so that the RCC and its subcommittees can take those relocations into account in developing the various Phase I relocation plans. These replacement licenses could be applied for and granted by the Commission (after 30-day Public Notice) at any time during the Phase I realignment process on a first-come, first-served basis, but no later than the close of Phase I. In order words, incumbents electing the voluntary 900 MHz relocation option are free to physically relocate at any time during the Phase I process after the Commission grants their relocation application.

B/ILT and H-SMR incumbents electing to voluntarily relocate to 900 MHz would receive relocation compensation for the costs they would have incurred for relocating within 800 MHz in accordance with the costs established for comparable 800 MHz relocations involving the same equipment and system characteristics, less overhead charges; *i.e.*, they would not receive compensation for any identified additional costs involved in moving to 900 MHz. Voluntary 900 MHz relocates would receive 900 MHz replacement spectrum on a "2 for 1" basis: four 12.5 kHz channels at 900 MHz for each 25 kHz channel surrendered in the non-cellular block; however, the "2 for 1" channels would be deferred until no later than the six months after the completion

of the Phase II relocation process for each Region.[42] Relocatees would initially receive 900 MHz replacement channels during Phase I on a "1 for 1" basis with the bonus channels deferred as described above. Alternatively, a 900 MHz voluntary relocatee should have the option of electing to receive its "2 for 1" channel award all at once during Phase I by forgoing any relocation cost compensation.

Finally, upon adoption of a Report and Order in this proceeding, the Commission should announce a temporary freeze on applications for new B/ILT/SMR licenses on channels 121 – 400, other than those filed by Nextel and incumbent relocates, as described herein.[43] Public safety applications would continue to be accepted and processed for new assignments on the Public Safety Pool channels. The freeze should continue in each NPSPAC Region until the Commission has granted all incumbent relocation applications in the non-cellular block, or alternatively, for voluntary relocation to 900 MHz. A temporary freeze on third-party new license applications for these channels will prevent speculators from "grabbing up" the remaining "white space" on B/ILT pool channels solely to impede the relocation of channel 1-120 incumbents and potentially profit thereby. The public interest will be served by completing 800 MHz realignment as expeditiously as possible so as to mitigate CMRS – public safety interference and provide additional spectrum for public safety communications systems. A

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[42] The delay in assigning the 2:1 bonus spectrum is temporarily necessary to ensure that Nextel has sufficient operating capacity to create the "green space" necessary to implement realignment.

[43] The application freeze would apply only to applications for new B/ILT/H-SMR licenses for "white space" on channels 121-400; it would not preclude applications for and continued processing of pending applications to complete channel swaps to clear the Upper-200 SMR EA-licensed channels, pursuant to Section 90.699 of the Commission's Rules or other transfer/assignment applications. In addition, site-modifications to existing licenses should also continue to be permitted provided that the modified transmitter sites' 22 dBu contour is wholly within the original site's 22 dBu contour (i.e., no white space is eliminated).

temporary application freeze, as described herein, will assist the Commission in achieving this

C. Phase II of the Realignment Framework: The Nextel-NPSPAC Exchange and Public Safety Relocation from the Guard Band

Under Phase II of the Realignment Framework, incumbent NPSPAC licensees currently at 821-824/866-869 MHz (channels 601-720) would be relocated to the new NPSPAC block at 806-809/851-854 MHz (channels 1-120), and Nextel would be relocated from its temporary spectrum at 806-809/821-824 MHz to the current NPSPAC block at 821-824/866-869 MHz, receiving a license covering this spectrum and geography. Incumbent NPSPAC licensee relocation would occur on a regional planning area basis: first in regions prioritized 1-14 and then in regions prioritized 15-55.

To facilitate Phase II planning and implementation for regions prioritized 1-14, the Commission should require all current NPSPAC channel incumbents in those regions to provide to the Commission and to the RCC a full description of their licensed systems, as more fully described in Appendix C, within 120 days of the effective date of the Report and Order in this proceeding. The Commission's Rules should provide for it to issue, 60 days after the Report and Order, a Public Notice directing current NPSPAC incumbents to provide the required information and directing the RCC to mail the Public Notice to all affected licensees on a delivery confirmed basis.

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[44] The Commission would continue to process a variety of 800 MHz applications, including assignment applications, non-technical modifications and renewals. Further, once the relocation plan for a particular region has been certified and relocation applications (reciprocal assignment applications) granted, the Commission could lift the freeze since subsequent applications would have to conform to the realigned spectrum plan and incumbent licensing.

Within eight months of the effective date of the Report and Order, the 800 MHz Regional Planning Committee in each of NPSPAC regions prioritized 1-14 either would reconfirm the transfer of the current NPSPAC regional channel plan ("Regional Plan") to 806-809/851-854 MHz, or would complete and adopt any necessary or desired revisions to the plan ("Revised Regional Plan").[45] During this time, the RCC would establish a Phase II Planning Committee[46] to coordinate with each NPSPAC Regional Planning Committee and incumbent NPSPAC licensees to develop a regional migration plan for relocating (i) all incumbent NPSPAC licensees to 806-809/851-854 MHz and (ii) Nextel to 821-824/866-869 MHz (the "Regional Migration Plan").[47] The Phase II Committee, working with the NPSPAC Regional Planning Committees, would complete each Regional Migration Plan within 10 months of the effective date of the

45 Phase II of this relocation framework requires a significant amount of work by the 55 NPSPAC Regional Planning Committees. The Consensus Parties agree that the Regional Planning Committees are eligible to recover certain reasonable operating costs incurred as the result of participating in the realignment framework. For example, the RCC could establish a grant program, funded from the Relocation Fund, to provide operating costs for the RPCs, similar to the funding program established by the National Public Safety Telecommunications Counsel for 700 MHz Band Regional Planning Committees.

46 The Phase II Planning Committee shall be appointed by and responsible to the RCC, and will be composed of one RCC-member representing (1) a public safety frequency coordinator with 800 MHz frequency coordination and planning experience; (2) a representative from each of the NPSPAC Planning Regions for the purpose of evaluating that Region's plan (each representative would participate only for developing the relocation plan for the particular Region he/she represents); and (3) Nextel. In the event that no representative of the NPSPAC Planning Region is willing or able to serve on the Phase II Planning Committee, the other two members of the Phase II Planning Committee shall endeavor to select a mutually acceptable third member who is otherwise familiar with public safety communications in the relevant Region and is willing to serve in that capacity. Reasonable expenses incurred by the Phase II Planning Committee and its public safety members will be subject to reimbursement from the Relocation Fund.

47 Once a revised Regional Plan is completed, the NPSPAC Regional Planning Committee ("RPC") should limit any subsequent amendments of their Regional Plans to the maximum extent possible pending completion of the NPSPAC relocation process to facilitate relocation planning and implementation.

Report and Order. The Phase II Planning Committee would certify each completed Regional Migration Plan to the Commission.

Certification of each Regional Migration Plan would trigger a nine-month mandatory negotiation period between Nextel and each Region prioritized 1-14 incumbent NPSPAC licensee concerning relocation timing, reimbursable costs and detailed procedures specific to each licensee to implement relocation without significant disruption to critical public safety communications services. If Nextel and an incumbent NPSPAC licensee cannot complete a relocation agreement within the first four months, they would be required to seek mediation assistance from the Regional Planning Committee.@ If there were no agreement by the end of the nine months mandatory negotiation period, either party could initiate a baseball-type arbitration process, as described above.[49]

Once each NPSPAC incumbent licensee in regions prioritized 1-14 and Nextel have reached agreement on relocation timing and costs, the RCC will prepare and file on behalf of the affected licensees the necessary license applications with a certified public safety frequency coordinator, which would then process and file the applications with the Commission in the same manner as discussed above for channel 1-120 public safety incumbents. This would permit

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[48] In the event an RPC does not desire to fulfill a mediation role, Nextel and the incumbent licensee would be required to submit to mediation by an Alternate Mediation Panel consisting of three members from among a list of knowledgeable Land Mobile Radio frequency experts compiled by the Phase II Committee. Nextel may select one member, the licensee one member; the third and presiding member would be selected by the RCC (with Nextel recused from participating in that selection). The reasonable costs of such mediation, whether by the RPC or an Alternate Mediation Panel, are eligible for reimbursement from the Relocation Fund.

[49] As explained in footnote **34** above, in those cases where a governmental agency is limited in participating in arbitration, the parties should be directed to undertake all best efforts to reconcile any unresolved cost and/or timing issues consistent with applicable state/local requirements, including non-binding arbitration subject to review and reversal by the Commission.

physical relocation of NPSPAC incumbents in regions prioritized 1-14 to commence at **24** months from the effective date of the Report and Order herein and be completed within nine months thereafter; *i.e.*, within **33** months of the Report and Order.

Any incumbent NPSPAC licensee in regions prioritized 1-14 not executing a relocation agreement within 19 months of the Report and Order or not vacating its original frequencies within 33 months of the Report and Order would be issued a new license for the replacement frequencies identified in the applicable Regional Migration Plan and would be given 30 days to relocate, combined with either (i) involuntary license cancellation or (ii) modification of its license to secondary status, unless the incumbent is involved in arbitration or, if a governmental licensee unable to engage in binding arbitration, engaged in a Commission administrative process in lieu of arbitration.[50]

Relocation of NPSPAC incumbents in regions prioritized 15-55 would proceed **as** described above in accordance with the following timeline:

(1) Nine months from the effective date of the Report and Order, the Commission would issue its Public Notice directing incumbents to provide detailed system information, as set forth in Appendix C, within 12 months of the Report and Order and directing the RCC to provide the Notice to affected licensees;

(2) Within 18 months, the Phase II Committee, with the assistance of the Regional Planning Committees for regions prioritized 15-55, would complete Regional Migration Plans for each licensee in each region and certify them to the Commission. The RPCs have up to 16 months to modify their existing regional plans prior to working with the Phase II Committee to develop their Regional Migration Plan;

(3) Certification would trigger a 13-month mandatory negotiation period between Nextel and individual licensees concerning relocation timing, cost support and specific

[50] The Consensus Parties recognize that there may be some rare circumstances when **a** public safety agencies completion of the relocation process may be impacted by circumstances well beyond their immediate control (i.e., Act of Nature or delays in equipment delivery). In such cases, public safety agencies would have an opportunity to seek a brief extension of the required period to complete relocations, but only after a sufficient showing of the specific facts and circumstances that caused the delay.

provisions to prevent significant disruption of public safety communications. Mediation assistance could be requested from the Regional Planning Committee at the six month mark; either party could elect "baseball" type arbitration at the eight month mark;

(4) At the end of the 13-month mandatory negotiation period (31 months from the Report and Order), the RCC would file the necessary assignment applications with the Commission. This would permit physical retuning to commence at 33 months and be completed within three and one-half years (42 months) of the effective date of the Report and Order for all incumbents on the old NPSPAC channels.

Any incumbent NPSPAC licensee in regions prioritized 15-55 not executing a relocation agreement within 31 months of the Report and Order or not vacating its original frequencies within 42 months of the Report and Order would be issued a new license for the replacement frequencies identified in the applicable Regional Migration Plan and would be given 30 days to relocate, combined with either (i) involuntary license cancellation or (ii) modification of its license to secondary status, unless the incumbent is involved in arbitration or, if a governmental licensee unable to engage in binding arbitration, engaged in **a** Commission administrative process in lieu of arbitration?'

Also in Phase II, incumbent public safety licensees currently licensed on channels in the proposed Guard Band (channels 321-400) would have the right to relocate to channels vacated by Nextel in the 121-320 interleaved block. These relocations would be carried out in conjunction with and completed by the end of the Phase II relocation period. Relocation of public safety Guard Band incumbents must be performed during the same period **as** NPSPAC relocation to minimize the disruption to incumbent public safety operations and to reduce the costs of realignment by reducing the number of times a public safety handset or radio must be

51 *Id.*

reprogrammed.[52] Incumbent public safety Guard Band licensees that desire to relocate would have to inform the RCC of their intent to do so within 45 days of the effective date of the Report and Order so that the RCC can take these relocations into account in its planning for relocating 1-120 channel blockincumbents into the 121-400 channel block.

As in the Phase I and Phase II processes, such relocations could be accomplished through 1:1 channel exchanges between these public safety incumbents and Nextel; *i.e.*, Nextel would swap its licenses in the 809-8141854-859 MHz band for the Guard Band assignments (which, of course, it ultimately will surrender in the Phase II process). Although these public safety Guard Band incumbents must notify the RCC of their intent to relocate within 45 days, the timelines governing their submission of system information, identification of replacement channels, mandatory negotiation with Nextel and physical returning will be those specified above for Phase II NPSPAC retuning depending on whether the licensee is located in regions prioritized 1-14 or regions prioritized 15-55.

A public safety Guard Band incumbent electing to relocate to the 121-320 channel block may at any time reverse its election and remain in the Guard Band, subject to the interference protection rules governing those channels, as set forth in Appendix F hereto. Any public safety

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[52] The main issue requiring NPSPAC relocations and public safety Guard Band relocations to occur simultaneously is because NPSPAC licensed users are often capable of "roaming" to public safety systems using Guard **Band** channels, particularly in the event of an emergency. Were public safety Guard Band incumbents to be relocated within the 800 MHz band during Phase I, their own radios could be retuned with little difficulty. However, the "roamers" (which could be several thousand users) would also need their radios retuned so that they could still roam on the relocated public safety Guard Band channel system. Then, in Phase II those same NPSPAC licensees (the "roamers") would need their radios retuned a second time, creating disruption and increased costs to public safety. Notwithstanding the above, it may be desirable in some cases to relocate the public safety Guard Band channel licensees in conjunction with the Phase I 1-120 channel relocations, particularly where the Guard Band licensee also has 1-120 channels. The RCC will address these situations with the affected licensee on a case-by-case basis.

Guard Band incumbent that elects to relocate, but fails to execute a relocation agreement by the required date, or fails to vacate its original frequencies as required for the region in which it is located, would remain in the Guard Band and be subject to the Guard Band interference protection rules.

D. Nextel's use of the 900 MHz and 1.9 GHz bands

The Consensus Parties recognize that it is crucial that Nextel is able to operate at 900 MHz during the realignment implementation period. During the realignment transition, Nextel will lose access to a considerable portion of its licensed 800 MHz spectrum. Maintaining sufficient capacity in the 900 MHz band is essential to Nextel's ability to provide service to existing and new customers while clearing the "green space" needed to make realignment possible.[53]

Nextel holds numerous EA and individual site licenses throughout the Land Mobile Band – the new NPSPAC channels, the 809-816/854-861 MHz channels (channels 121-400) and the 816-821/861-865 MHz channels (channels 401-600). Any realignment plan inevitably involves and impacts Nextel and will significantly reduce its current 800 MHz spectrum capacity until realignment is complete. For example, to accommodate migrating old NPSPAC incumbents to the new NPSPAC channels, Nextel will have to phase out of its temporary exclusive position on the new NPSPAC channels as old NPSPAC incumbents begin relocating there. In some NPSPAC regions, the intensive use of these channels, the geographic proximity of licensees, and the restrictions on spectrum use necessary to minimize CMRS – public safety interference could

[53] Operating a CMRS system at 1.9 GHz will not solve this problem in time, given the need to clear incumbent Broadcast Auxiliary Service licensees from the 1990-1995 band and build new CMRS facilities. It is essential, however, that the clearing, the planning and initial construction of the 1.9 GHz band be able to commence concurrent with the Commission's Report and Order.

require Nextel to migrate off the majority of the 1-120 channel block before it can relocate to and make significant use of the old NPSPAC channels.[54]

The Consensus Parties recognize that Nextel will have to fully utilize its licensed facilities at 900 MHz and temporarily rely on dual-band operations for the capacity needed to avoid disruption of its service during Phase I and Phase II realignment, while at the same time accommodating 800 MHz B/ILT and high-site SMR incumbents that choose to voluntarily move to 900 MHz.[55] Nextel will, however, vacate all of its 900 MHz licenses within six months of completion of Phase II retuning.[56] Consistent with the Consensus Plan, Nextel's 900 MHz SMR spectrum would then become "white space" available for licensing by the Commission to B/ILT and high-site SMR eligibles.

The Consensus Plan also provides that Nextel's reassignment to replacement spectrum at 1910-1915/1990-1995 MHz must be effective with the adoption of the Report and Order herein. Due to continuing Broadcast Auxiliary Service ("BAS") use of the 1990-1995 MHz band, now allocated to the Mobile Satellite Service ("MSS"), Nextel would not be able to make immediate use of this replacement spectrum. The current relocation plan for BAS, adopted in the Commission's 2 GHz MSS proceeding, is a complex, gradual process that broadcasters have

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54 In other words, Nextel will have to manage its relocation from the new NPSPAC block to the old NPSPAC block in concert with the NPSPAC licensee relocation to minimize CMRS – public safety interference.

55 As discussed previously, the Consensus Parties would permit any 800 MHz B/ILT or H-SMR licensee to elect, within 60 days of the release of the Report and Order herein, to relocate to Nextel's 900 MHz channels on a "2 for 1" bonus basis.

56 As noted above, by this time, any B/ILT/H-SMR incumbents that voluntarily relocate to 900 MHz and elect the compensation option, will receive their 2:1 900 MHz channel bonus channel assignments.

criticized as imposing undue burdens and uncertainty on their BAS operations." Nextel has committed to working with broadcasters to develop a revised BAS relocation plan.[58] Similarly, Nextel may be responsible for reimbursing UTAM for up to 25 percent of the costs of clearing former microwave licensees from the Unlicensed Personal Communications Service ("UPCS") spectrum (1910-1915 GHz) that would be reassigned to Nextel. Planning, contractual commitments, site acquisition and related activities must commence immediately for the initiation of Nextel service on the 1.9 GHz spectrum in view of Nextel's reduced spectrum position at both 800 MHz and 900 MHz.

V. BORDER REGION REALIGNMENT PLAN

The *NPRM* sought comment on "how any relocating plan would be implemented consistent with international agreements, in those areas of the United States that are adjacent to the Canadian and Mexican borders."[59] As noted in the *NPRM*, the specific frequencies allotted to the various 800 MHz band pools in the border areas are different from the rest of the country, and some 800 MHz frequency blocks in these areas are reserved for primary Canadian or Mexican use while others are reserved for primary use by the United States. The Consensus Plan states that the "existing proportionate U.S. land mobile radio channel allocations in the U.S. – Mexico and U.S. – Canada Border Areas, respectively, will be maintained" in realigning the 800

57 ***See*** Joint Comments of the Association for Maximum Service Television, Inc. ("MSTV") and the National Association of Broadcasters ("NAB"), ET Docket No. 00-258, at 5 (filed Oct. 22,2001).

58 ***See*** Nextel May 6,2002 Comments at 51.

59 *NPRM* at para. 33.

MHz band, and recognized "the need for a complete bandplan including a detailed spectrum re-alignment plan in the Mexican and Canadian border regions."[60]

Appendix ***G*** attached hereto provides such a realignment plan for the Canadian and Mexican border regions ("Border Region Realignment Plan"). This plan is based on the following principles: ***First,*** to address CMRS – public safety interference on existing licensees, realignment in the border regions should be consistent with the Consensus Plan's realignment of the 800 MHz band in the rest of the country to the greatest extent possible. ***Second,*** realignment in the border regions should comply with the international treaties between the respective countries.[61] ***Third,*** public safety spectrum must be reallocated as far away from CMRS operations as possible, and never above 861 MHz, in order that modifications to public safety equipment be consistent across the U.S. *Fourth,* realignment in the border regions must take into account actual existing spectrum usage, including intercategory sharing and secondary spectrum use by **U.S.** licensees on Canadian or Mexican primary channels in the spectrum-constrained border areas, so that no existing licensee suffers a net loss of spectrum. *Fifth,* regardless of current usage, the entire NPSPAC allocation in each border region should be relocated as it is already allocated, whether by contiguous block or interleaved with another country's spectrum allocation.

Consistent with these principles, the Border Region Realignment Plan details the proposed band realignments for the Canadian and Mexican border regions. These realignments would satisfy the principles described above and significantly resolve the potential for CMRS –

60 See August 7,2002 Reply Comments of Consensus Parties at 16.

61 Renegotiating the treaties would, however, make possible optimal spectrum use by licensees and users on both sides of the respective borders. Accordingly, the Commission should pursue renegotiating these treaties, as described further below.

public safety interference in these areas. The proposed realignments in the border regions are generally consistent with the Consensus Plan for the rest of the US., creating a non-cellularized block in the lower portion of the 800 MHz Land Mobile Radio Band and a cellularized block in the upper portions. NPSPAC licensees are consequently relocated as far as possible from the operations of cellular licensees, without modifying existing international agreements. Border area licensees can use new public safety handset developments – made possible by the Consensus Plan realignment -- for the lower portion of the 800 MHz band without changes in their equipment. Incumbent B/ILT and high-site, high-power *SMR* licensees would need to be relocated from the lower portion of the 800 MHz band to make way for the new NPSPAC block, as would be the case for the rest of the U.S. under the Consensus Plan.[62] The Border Region Realignment Plan also addresses the various spectrum constraints and special circumstances existing in each of the border regions.

Consistent with the fourth principle described above, the Border Region Realignment Plan would grandfather the secondary use in the United States of Canadian and Mexican primary channels by U.S. licensees. A number of U.S. licensees, including public safety, private wireless and commercial providers,[63] make extensive use of such channels on a secondary basis, and

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[62] While the Consensus Parties propose to relocate the NPSPAC block to the lowest portion of the 800 MHz band as it exists today, in a contiguous block in the Canadian Border Area, an alternative approach would be to interleave the NPSPAC allocations with existing public safety incumbent licensees who are already licensed in the lowest portion of the 800 MHz band, which would reduce disruption to existing public safety licensees and reduce the costs of relocating public safety licensees.

[63] For example, Boeing makes significant use of primary Canadian channels in Border Region 5 on the U.S. side of the U.S./Canadian border on a secondary basis to Canadian licensees. Consumers Energy is similarly a secondary licensee to Canadian primary use in Border Region 3. Nextel also holds numerous licenses for secondary use of Canadian and Mexican primary channels in the U.S.

under the proposed plan could continue their current operations on these channels, whether cellular or non-cellular, notwithstanding that they may be on channels that -- were they allocated for primary use in the United States – would be within the non-cellular channel block.[64] These operations have to date not caused significant interference to public safety systems in the border regions, and, in any event, are *secondary* to public safety and other primary users of the band in the U.S. and would be required to cease operations upon any incidence of interference.

Severe spectrum constraints exist in the border regions because significant portions of the 800 MHz Land Mobile Radio Band are licensed to Canada and Mexico rather than the U.S.[65] The Land Mobile Radio border area allocations stand in sharp contrast to the 870 – 895 MHz allocation for the Cellular Telecommunications Radio Service in which all of the channels are fully available to licensees on both sides of the respective borders. Grandfathering secondary licenses in the border regions will permit realignment of the 800 MHz band consistent with

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64 The Consensus Parties believe, however, that public safety use of secondary channels in the NPSPAC Regions should be relocated to alternative channels lower in the 800 MHz band so as to take advantage of eventual equipment changes and to reduce the possibility of interference from primary U S . operators in the adjacent Cellular Block spectrum.

65 The 800 MHz Land Mobile Band is split between channels allocated for U.S. primary use, and channels allocated for Canadian or Mexican primary use. No country has access to all 720 Land Mobile channels in its border regions; the channels are divided between the respective countries – not necessarily on an equal basis – and further divided in the U.S. among the Land Mobile Radio channel pools: public safety, business, industrial and land transportation and SMR. The treaties and related international agreements permit domestic licensees in the U.S. border regions, for example, to operate on channels allocated to Canadian use in a border area on a secondary, non-interfering basis even though the channels are not included in the U.S. channel allocation for that border area. Secondary use in the border regions is critical to overcoming the domestic spectrum shortage resulting from dividing a finite number of Land Mobile Radio channels between the border countries. Grandfathering current secondary **use** is, in turn, essential to assuring that 800 MHz realignment does not reduce the spectrum available to any border area incumbent licensee, as discussed further, above. The Commission should encourage, where technically feasible, additional 800 MHz land mobile services in the U.S. border areas using Canadian or Mexican primary channels on a secondary basis.

treaty obligations and without causing any licensee to suffer a net loss in its current spectrum use.[66]

VI. POLICIES AND PROCEDURES TO MITIGATE INTERFERENCE

As Nextel stated in its September 23 Comments, the Consensus Plan realignment in-and-of-itself will eliminate the vast majority of intermodulation interference experienced today by public safety communications systems in the 800 MHz band.[67] Realignment will effect a similar reduction in intermodulation interference to non-public safety noise-limited systems in the new non-cellular block, albeit a somewhat less but still very substantial intermodulation interference reduction for noise-limited systems in the new 800 MHz Guard Band.

The Consensus Parties recognize, however, that no band plan can eliminate entirely all possibility of interference under all circumstances.[68] Appendix F sets forth the Consensus Parties' proposed policies and procedures to address interference in a post-realignment environment. In addition to continued co-channel interference protection for all licensees, the Consensus Parties propose new standards for limiting out-of-band emission ("OOBE") and intermodulation interference to licensees in the post-realignment non-cellular channel block from the Cellular Block and Cellular operators. Appendix F also contains proposed procedures and requirements for all parties to cooperate in identifying the sources of interference experienced by noise-limited systems in the non-cellular channel block, as well as recommended prospective equipment and system design standards to further minimize the conditions that give rise to CMRS – public safety interference.

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67 Nextel's September 23,2002 Comments at pages 1- 4.

68 September 23,2002 Consensus Parties Comments at page *6*.

Part 90 of the Commission's Rules was initially designed for licensing private radio systems for businesses, public safety communications systems and SMR systems typically operating a single high-site, high-power base station serving up to 100 mobile units or more over a fairly large area.[69] The Commission's primary concern was to license such systems with sufficient geographic co-channel separation to prevent co-channel interference. As a general rule, the Commission licensed co-channel systems a minimum of 70 miles apart;[70] it provided, however, no specific adjacent channel or other technical interference protection requirements to Part 90 licensees.[71] The Commission relied on its certified frequency coordinators and co-channel separation requirements to prevent interference among Part 90 licensees;[72] if interference nonetheless occurred, the Commission's Rules required the affected licensees to cooperate and resolve the problem by mutually satisfactory arrangements.[73]

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69 The reliable service area of these single site systems typically extended for a radius of 20 miles from the base station, although in practice service often extended further. However, in its initial efforts at proving flexibility to licensees, the Commission permitted the introduction of all technologies consistent with the co-channel distance separation rules.

70 See Inquiry Relative to the Future Use of the Frequejhncy Band 806-960 MHz; and Amendment of Parts 2, 18, 21, 73, 74, 89, 91, and 93 of the Rules Relative to Operations in the Land Mobile Service Between 806 and 960 MHz, Docket No. 18262, Second report And Order, 46 FCC 2d 752, 775 (1974), ***reconsidered, Memorandum Opinion and Order,*** 51 FCC FCC 2d 945 (1975).

71 ***Id.*** at pages 772-773.

72 Frequency coordination requirements for Part 90 licensees are contained in Section 90.175 of the Commission's Rules.

73 ***See*** Section 90.173(b) of the Rules. The Commission has traditionally applied a policy of "last-in fixes it" for individual cases of interference when both licensees are in compliance with the Commission's Rules; it has not, however, codified this practice. Moreover, the *NPRM* in this proceeding recognizes that such practices are inadequate to resolve the unpredicted spectrum allocation conflicts that are the basis of the CMRS – public safety interference problem at 800 MHz.

With the development of cellular-type low-power, low-site frequency reuse enhanced SMR systems at 800 MHz, the Commission codified its co-channel short-spacing licensing policies to permit by rule a co-channel separation of as little as 55 miles in recognition of the inherent interference-limited design of such systems;[74] it did not, however, adopt additional interference standards or requirements for intermodulation and/or adjacent channel interference.

The Consensus Parties recommend that the Commission adopt for the first time additional post-realignment interference protection standards for Land Mobile Radio licensees that go beyond co-channel interference protections. These standards are detailed in Appendix F; a general outline is provided herein. The Commission's co-channel separation requirements would remain in place after realignment. In addition, non-cellular licensees would be protected from recurring OOBE or intermodulation interference from licensees in the new cellularized block (816-824/861-869 MHz), the Cellular A and B block licensees, or any combination of the above, provided that the non-cellular licensee's base station to mobile transmissions in the affected area have a signal strength of –98 dBm or better if it is an existing system, and a signal strength of –95 dBm or better in the case of new or replacement systems, in either case with receivers meeting TIA Class A specifications.[75] Non-cellular licensees in the new Guard Band, 814-816/859-861 MHz, would receive the same interference protection for existing systems and new systems as specified above, with the thresholds for protection increasing on a linear basis

[74] *See* Section 90.621 of the Rules.

[75] These interference protection thresholds will be based on a coverage probability of 95 percent, unless the system in question was designed to a greater coverage probability level. Procedures for measuring signal strength in the area of purported interference and statistical assessments of reliability will be developed through consensus by an industry working group as part of a Revised Best Practices Guide for Mitigating CMRS – Public Safety Interference. The Consensus Parties recommend that the Commission direct the formation of this working group and charge it with producing as revised Best Practices Guide, as detailed in Appendix F.

from –98 / -95 dBm as indicated above at 859 MHz by an additional 6 dB for both thresholds at 859.5 MHz, and by an additional 33 dB for both thresholds at 860.5 to 861.0 MHz.

Thus, if a licensee in the non-cellular channel block is operating as set forth above and still experiences CMRS – public safety interference at a certain location, the cellular carriers creating the interference would be required to take such actions as are necessary to eliminate it. If, on the other hand, the non-cellular channel block licensee's system is less robust than the above-specified signal strength parameters in the area of interference, the non-cellular licensee would have to first improve its signal strength before the cellular carriers would be required to undertake any corrective actions. If the non-cellular carrier meets or exceeds the required signal strength and interference persists, the cellular operators would be required to eliminate it through modifications to their operations, either individually or jointly, as may be necessary in each case.[76]

A base-to-mobile signal strength of –98 dBm represents a transmission only slightly higher than the minimum necessary for successful voice communications; weaker signals are typically not reliable in real world applications. Thus, the Consensus Parties propose an interference standard for existing noise limited systems that should protect the majority of reasonably well-designed non-cellular licensees from the remaining post-realignment possibility

[76] Appendix F contains procedures for notifying cellular carriers of interference and sets forth the responsibilities of both cellular and non-cellular carriers to work together to identify the sources of interference and the cause or causes thereof. If a public safety communications operator reasonably believes, based on generally accepted engineering analysis, that it is experiencing CMRS – public safety interference at a specific location or locations, all potentially interfering CMRS licensees within 5,000 feet of the interference area will be required to work with the public safety operator to determine the causes of such interference. If the interference is caused by intermodulation from the combined transmissions of co-located or near co-located CMRS licensees, the Commission's rules would require all involved CMRS licensees to cooperate jointly to eliminate it.

of intermodulation interference due to cellularized operations above 861 MHz. New and replacement systems would be required to demonstrate a somewhat more robust base-to-mobile signal strength to warrant such protection, in recognition of the operating and design opportunities for non-cellular systems made possible by realignment.

In addition, the Consensus Parties would require all cellular licensees in the 861-895 MHz band to suppress OOBE noise by no less than **43** + 10 log (P) dBc, where P is average transmitter power in watts, at the edges of the spectrum allocations, and further reduce OOBE noise by no less than 35 dB on all frequencies greater than **2** MHz outside the spectral allocation. Enhanced CMRS OOBE filtering will be possible as a result of the Consensus Plan's de-interleaving of different land mobile services into contiguous channel blocks, and will essentially eliminate the potential for OOBE noise to adversely affect receivers in the non-cellular block.

Finally, the Consensus Parties recommend that the Commission encourage equipment manufacturers serving the non-cellular 800 MHz services to take advantage of the spectral segregation of cellular and non-cellular operations in future RF hardware and system designs. The separation of cellular low site and non-cellular high site systems, combined with the consolidation of public safety channels in a contiguous block, offers manufacturers new options for preventing undesired adjacent or proximate RF transmissions from creating on-channel intermodulation products in public safety receivers.[77] Taking advantage of these opportunities will further minimize the probability of interference to non-cellular systems below

[77] The Consensus Parties explicitly clarify that **it** is not their intent to drive public safety systems to implement interference-limited system architectures. To the contrary, the Consensus Parties intend the non-cellular block to be "safe harbor" for the continued use of noise-limited systems by public safety and private radio licensees. The interference protection standards proposed herein balance the interests of all parties and provide specific guidance for system design parameters entitled to enhanced interference protection.

861 MHz from CMRS operations above 861 MHz and thereby enable all 800 MHz operators to more efficiently and effectively use their spectrum to advance the public interest.

VII. RELOCATION OF SOUTHERN LINC

In its September 23 comments, Nextel responded to concerns from Southern LINC that the Consensus Plan or any other 800 MHz realignment proposal would fail to accommodate its mixed high-site and low-site SMR system.[78] Nextel stated that the Commission could "grandfather" Southem LINC systems operating in the Consensus Plan's non-cellularized spectrum at 809-816/854-861 MHz within 25 miles from the center points of Atlanta and Birmingham, the two largest cities in Southern's operational territory. **As** a result, for licensed facilities within those 25-mile radii, Southern LINC would be exempt from Consensus Plan waiver procedures applicable to all other entities wishing to maintain or deploy cellularized low-site, low-power systems in non-cellularized spectrum.

The Consensus Parties now propose that the Commission take a further step to remove any concerns Southern LINC may have regarding the Consensus Plan. The Commission should grandfather *all* Southern LINC systems operating at 809-821/854-866 MHz within Southern LINC's entire licensed footprint in Alabama, Georgia, Mississippi, and Florida. Thus, within the non-cellularized 809-816/854-861 MHz band, Southern LINC would be able to ***both*** maintain its existing cellularized low-site, low-power sites and establish additional low-height sites without having to seek a waiver to do so,[79] provided that it does not cause interference to

[78] See Nextel's September 23,2002 Comments on Consensus Plan at pages 8-10.

[79] The Consensus Plan provides that non-cellular band licensees desiring to deploy future cellular-like technologies would first have to obtain a waiver of the Commission's prohibition on cellular-type system architecture in the non-cellular spectrum block. To obtain a waiver, a licensee in the non-cellularized band would have to demonstrate that its proposed cellularized system would not contravene the underlying purpose of the non-cellular prohibition for this